TITLE: An Apparatus and Method for Accessing a Mass Storage Device in a Fault-Tolerant Server
APPLICANTS: McLoughlin et al.
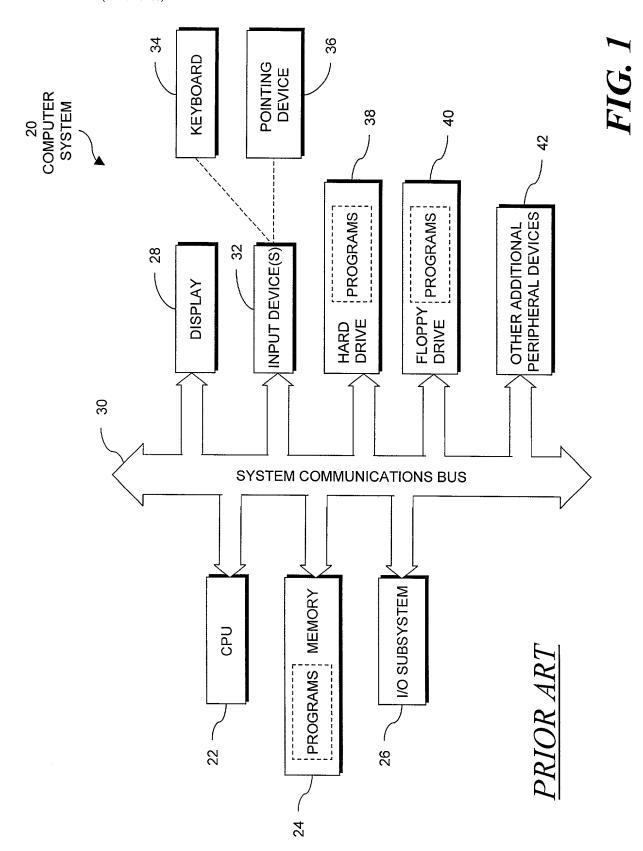ATTY. DOCKET NO.: SRT-024
EXPRESS MAIL NO.: EL653443316US
(Sheet 1 of 10)

*FIG. 1*

*PRIOR ART*

TITLE: An Apparatus and Method for Accessing a Mass Storage Device in a Fault-Tolerant Server
APPLICANTS. McLoughlin et al.
ATTY. DOCKET NO.: SRT-024
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*FIG. 2*

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*FIG. 3*
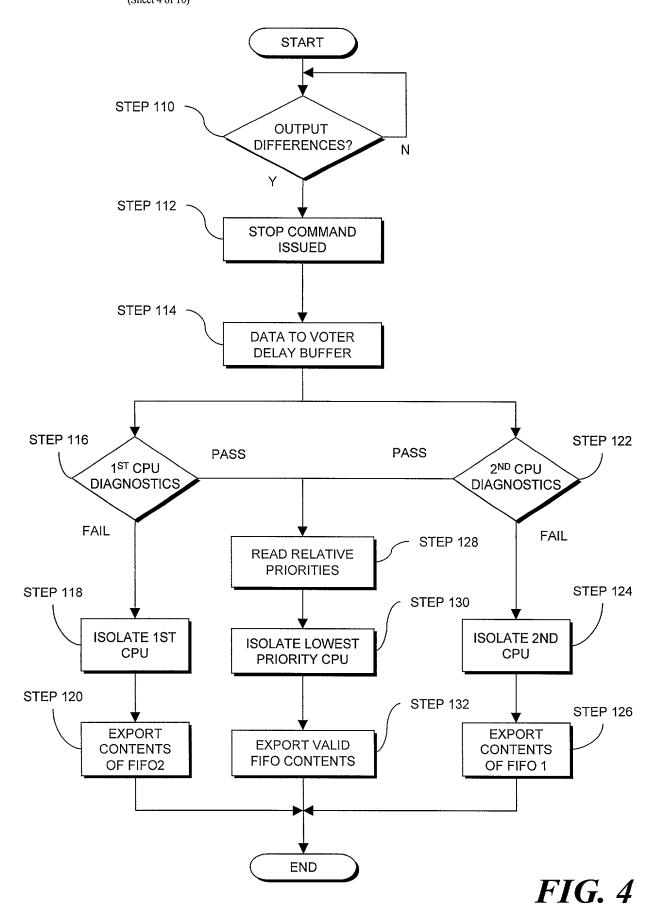
TITLE: An Apparatus and Method for Accessing a Mass Storage Device In a Fault-Tolerant Server
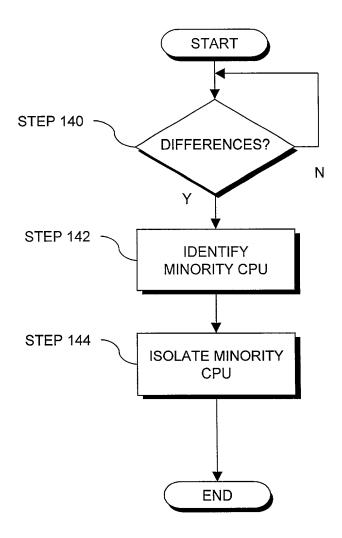APPLICANT: McLoughlin et al.
ATTY. DOCKET NO.: SRT-024
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(Sheet 4 of 10)

START

STEP 110 — OUTPUT DIFFERENCES?   N

Y

STEP 112 — STOP COMMAND ISSUED

STEP 114 — DATA TO VOTER DELAY BUFFER

STEP 116 — 1ST CPU DIAGNOSTICS

PASS        PASS

STEP 122 — 2ND CPU DIAGNOSTICS

FAIL                              FAIL

STEP 128 — READ RELATIVE PRIORITIES

STEP 118 — ISOLATE 1ST CPU

STEP 130 — ISOLATE LOWEST PRIORITY CPU

STEP 124 — ISOLATE 2ND CPU

STEP 120 — EXPORT CONTENTS OF FIFO2

STEP 132 — EXPORT VALID FIFO CONTENTS

STEP 126 — EXPORT CONTENTS OF FIFO 1

END

*FIG. 4*

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START

STEP 140 —— DIFFERENCES?

N

Y

STEP 142 —— IDENTIFY MINORITY CPU

STEP 144 —— ISOLATE MINORITY CPU

END

*FIG. 5*

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*FIG. 6*

20
FAULT-TOLERANT
SERVER

BACKPLANE 158

150'

22'
CPU 1

152'
I/O SUBSYSTEM 1

154'

22
CPU 0

152
I/O SUBSYSTEM 0

154

150

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*FIG. 7*

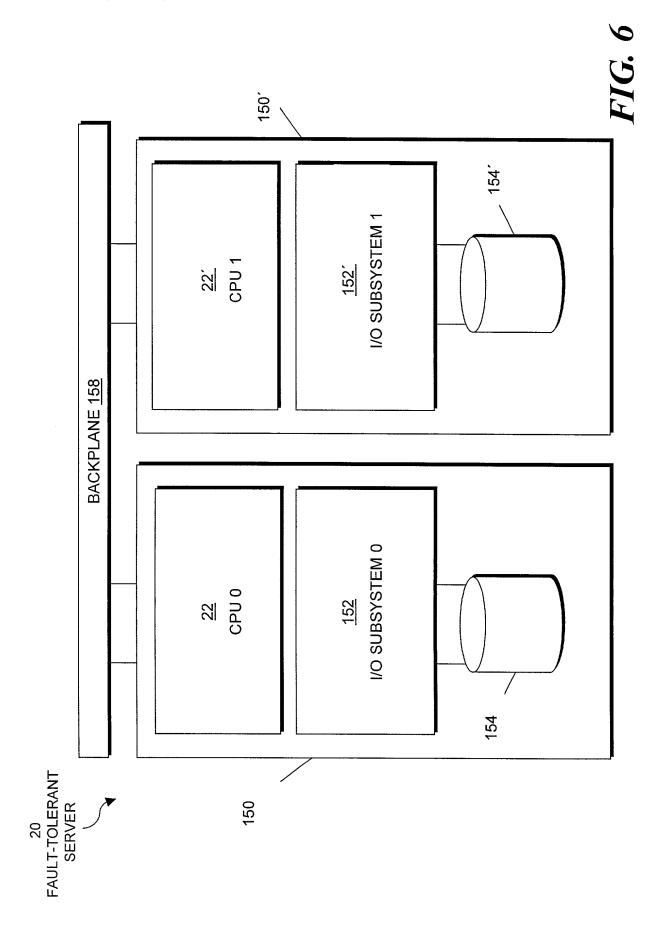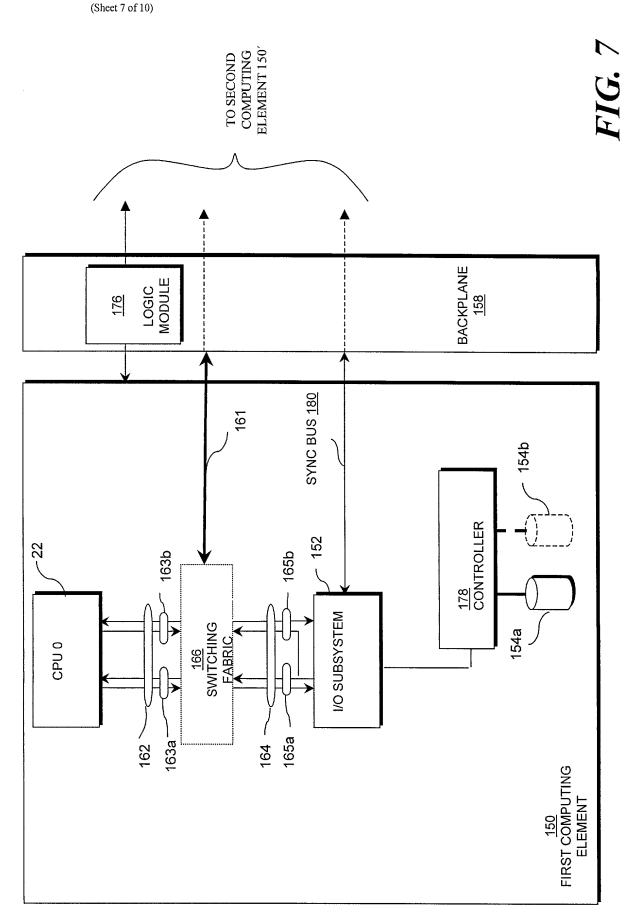TITLE. An Apparatus and Method for Accessing a Mass Storage Device in a Fault-Tolerant Server
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(Sheet 8 of 10)

*FIG. 8*

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APPLICANT: McLoughlin et al.
ATTY. DOCKET NO.: SRT-024
EXPRESS MAIL NO.: EL653443316US
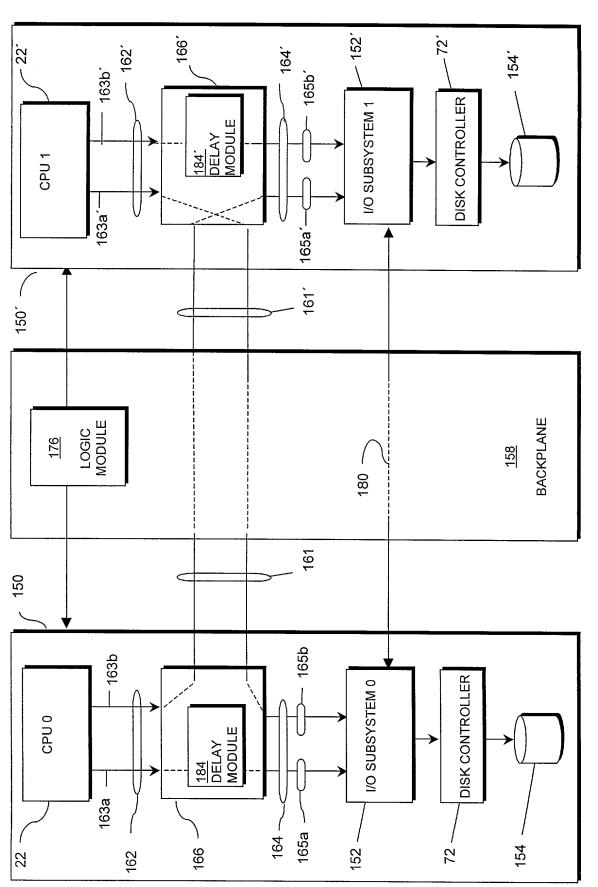(Sheet 9 of 10)

START

STEP 204 — ESTABLISH COMMUNICATION BETWEEN A FIRST COMPUTING ELEMENT AND A COMMUNICATIONS LINK

STEP 208 — ESTABLISH COMMUNICATION BETWEEN A SECOND COMPUTING ELEMENT AND THE COMMUNICATIONS LINK

STEP 212 — PROVIDE A FIRST INSTRUCTION TO SWITCHING FABRIC

STEP 216 — PROVIDE A SECOND INSTRUCTION TO SWITCHING FABRIC

STEP 220 — TRANSMIT TO THE I/O SUBSYSTEM

STEP 224 — COMPARE FIRST INSTRUCTION AND SECOND INSTRUCTION

STEP 228 — MISCOMPARE?

STEP 232 — ISSUE STOP COMMAND

Y

N

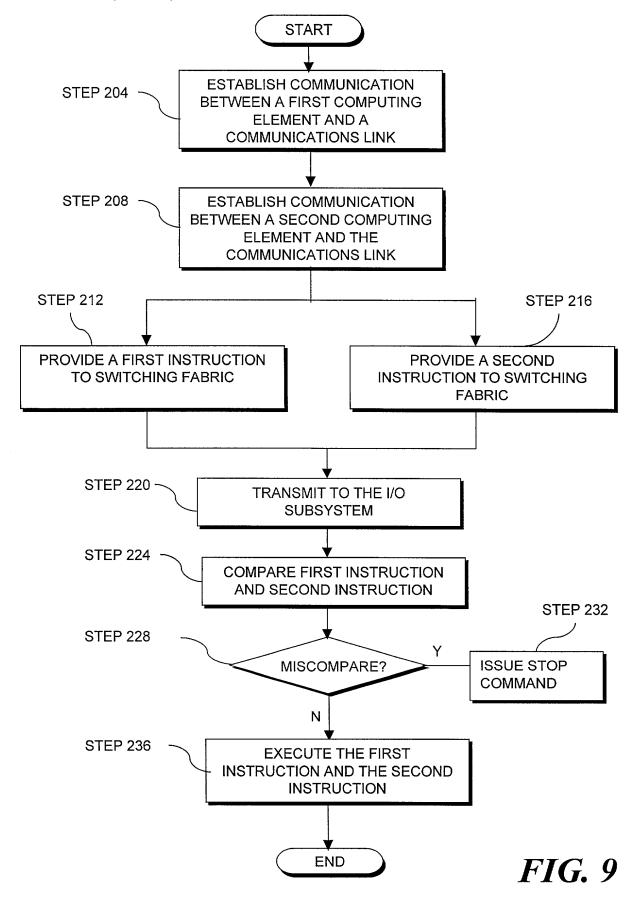STEP 236 — EXECUTE THE FIRST INSTRUCTION AND THE SECOND INSTRUCTION

END

*FIG. 9*

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EXPRESS MAIL NO.: EL653443316US
(Sheet 10 of 10)

*FIG. 10*

1U

1U

1U

150

150'

150''